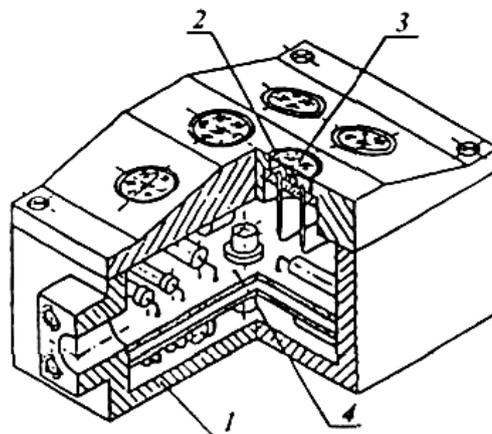
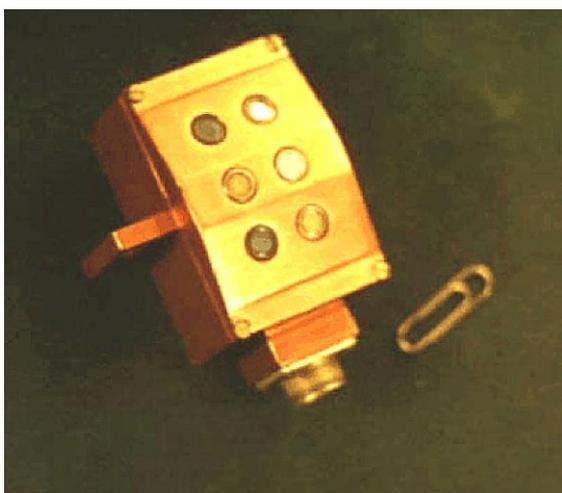


## IR MULTICHANNEL FIRE ALARM SENSOR (FAS)



- The FAS operation is based on the registration of hydrocarbons flame emission in two narrow regions of IR spectrum near 2,7 and 4,3  $\mu\text{m}$  and on subsequent signal processing by strong algorithm with generation of a command signal to actuate fire fighting or signaling system.
- Fire alarm sensor is designed for the use in powered and inhabited compartments of different type transport facilities. It can be successfully used in the fireproof systems as well as fixed objects: storehouses, terminals, living accommodations, offices and the like.
- The elaborated fire alarm sensor optimally corresponds to the present day fireproof concept providing high sensitivity of detecting inadvertent fire center and negligibly small possibility of false operation.

### Appearance and schematic diagram of IR multichannel fire alarm sensor



- The FAS is mounted in a rigid case 1. Specially designed high-sensitive thermoelectric film receivers (2) showing fast response are used as IR sensors. Narrow band interference filters (3) are installed in the inlet windows of the receivers. Electric signal processing system is mounted on the two-sided plate (4).
- The specific feature of the FAS lies in its increased security against false operation. Under operating conditions it does not respond either to direct sunlight or to different lamps. It does not respond to IR radiation from heated objects, in particular, house-heating equipment and the like. Use of low-resistance thermoelectric receivers precludes false operation because of electromagnetic noise.

### Typical characteristics of FAS

1.	Minimum area of naked flame providing reliable FAS operation at a distance up to 10m, m <sup>2</sup>	0.2
2.	Period of generating command signal to spontaneous combustion at FAS receiving elements exposed to fire	40
3.	Field of vision angle, not less	120°
4.	Voltage, V, DC	27
5.	Power consumption, W	0.01-0.1
6.	The sensor keeps normal operation when exposed to ambient temperature, °C relative humidity up, % acoustic noises up, dB	from -60 to +60 to 80 at 25°C ± 10°C to 120

**Orders and additional information:** General Post Office, Box 86, Chernivtsi, 58002, Ukraine; e-mail: [ite@inst.cv.ua](mailto:ite@inst.cv.ua); fax: (380-3722)-41917; tel: (380-3722)-41917; <http://ite.cv.ukrtel.net>.